

Evidence of Carbon on the Move demonstrations

Demonstrations

Combustion



Candle mass =
25 grams



Candle mass =
22 grams

Weight of candle before =

Weight of candle after =

BTB before =

BTB after =



Compare the dish of
BTB before the
bread molded to after
the bread molded

Combustion

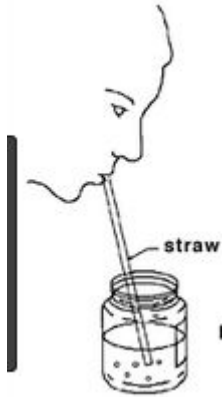


Combustion

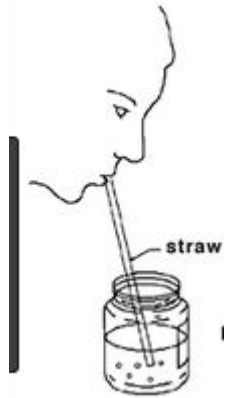


Cellular respiration

Blow bubbles into BTB



Before beaker =
blue



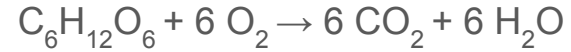
After beaker =
green

Color of BTB before =

Color of BTB after =

Cellular Respiration

Cellular respiration

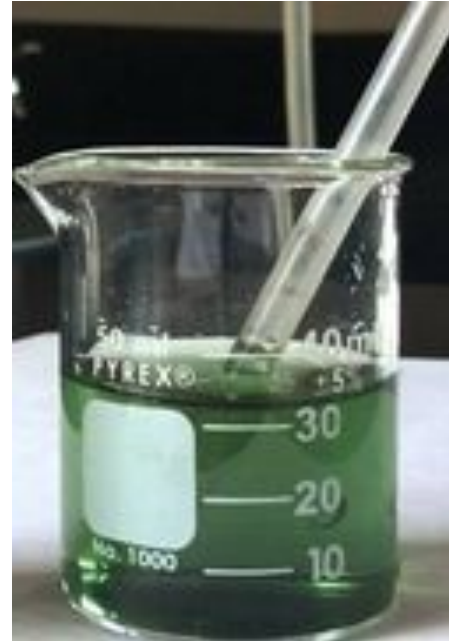


Remember- do not confuse cellular respiration
with breathing respiration

Lab Challenge

I changed my mind and now I want the carbon dioxide out of the water.

What do I do?



If you need time to think, I will have a snack while I wait.



Photosynthesis

Beaker with plant before

Photosynthesis

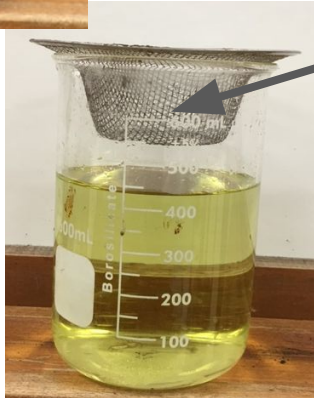


Beaker with plant after

Diffusion



Dry ice



Dry ice

Diffusion

Movement of molecules from a high concentration to a low concentration

In this example, we are only tracing the carbon dioxide and are only considering that it changed reservoirs. Imagine small “bubbles” of carbon dioxide in the water. Later, we will learn a chemical reaction.

Decomposition



Mass bread before
mold = 29.86 grams



Place bread in a box with
BTB and allow to mold.
Mass of bread after
molding = 25.61 grams



Compare the dish of
BTB before the
bread molded to
after the bread
molded

Data:

Mass of bread before=

Mass of bread after molding =

Change in Mass of bread =

BTB before molding =

BTB after molding =

What can you conclude?

Decomposition



Decomposition

process by which organic substances are broken down into simpler organic matter.

Organic compound + $O_2 \rightarrow CO_2 + H_2O$ + inorganic nutrients

Formation of Fossil Fuels

<https://www.nationalgeographic.org/encyclopedia/coal/>

<https://www.bbc.com/bitesize/guides/z8yj6sg/revision/1>

http://www.bbc.co.uk/schools/gcsebitesize/science/ocr_gateway/carbon_chemistry/crude_oilrev1.shtml

From what material was coal formed?

From what material was oil formed?

How long does it take to form coal and oil?

How is crude oil formed?

Formation of Limestone

<https://www.irvmat.com/kids/whatislimestone.htm>

Of what materials is limestone composed?

How is limestone formed?

How long does it take to form limestone?

What are uses of limestone?